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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/602,940	06/23/2000	Frank Ronneburg	13237-2720/MS#150533.1	9432

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EXAMINER

JACOBS, LASHONDA T

ART UNIT	PAPER NUMBER
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2157

DATE MAILED: 05/21/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

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# Office Action Summary

Application No.

09/602,940

Applicant(s)

RONNEBURG ET AL.

Examiner

LaShonda T. Jacobs

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-6 is/are allowed.
- 6) ☒ Claim(s) 7-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

This Office Action is in response to Applicant's Amendment and Request for Reconsideration filed on May 13, 2004. Claims 1-25 are presented for further examination.

***Allowable Subject Matter***

1. Claims 1-6 are allowed.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 7-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Zisapel et al (hereinafter, "Zisapel", 6,249,801).

As per claim 7, Zisapel discloses computer-implemented method for creating a virtual server ring, comprising the step of:

- storing an entry in a server table identifying a plurality of servers in a server pool, wherein each entry comprises a server identification, a first server buddy and a second server buddy (col. 5, lines 15-25 and lines 58-62).

As per claim 8, Zisapel further discloses the steps of:

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- adding a new server to the virtual server ring by randomly choosing one of the plurality of servers and the randomly chosen server's first server buddy (col. 6, lines 40-55 and col. 7, lines 35-47);
- reassigning the new server as the randomly chosen server's first server buddy (col. 6, lines 40-55 and col. 7, lines 35-47); and
- reassigning the new server as either the first server buddy or second server buddy of the randomly chosen server's first server buddy (col. 6, lines 40-55 and col. 7, lines 35-47).

As per claim 9, Zisapel further discloses the step of:

- causing at least one of the plurality of servers to monitor its first buddy server and its second server buddy to determine whether one of its buddies is down (col. 5, lines 15-27).

As per claim 10, Zisapel further discloses the step of:

- when the monitoring server determines that one of its buddies is down, reporting the identity of the down server to the server table (col. 5, lines 15-27).

As per claim 11, Zisapel further discloses the steps of:

- causing a routing server, wherein the routing server is responsible for routing a client to the virtual server ring, to no longer route the client to the down server (col. 5, lines 15-27 and col. 6, lines 3-14).

As per claim 12, Zisapel discloses:

- wherein the step of causing the routing server to no longer route the client to the down server comprises the step of removing the down server from the server table (col. 5, lines 15-27 and col. 6, lines 3-14).

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As per claim 13, Zisapel further discloses:

- storing a buddy list at each of the plurality of servers, wherein the buddy list comprises the server's first server buddy and the server's second server buddy (col. 5, lines 15-25 and lines 58-62).

As per claim 14, Zisapel discloses:

- wherein the step of causing at least one of the plurality of servers to monitor its first server buddy and its second server buddy to determine whether one of its buddies is down comprises sending an ICMP ping signal to the first server buddy and to the second server buddy (col. 5, lines 15-25 and col. 7, lines 6-31).

As per claim 15, Zisapel further discloses the steps of:

- if one of the plurality of servers in the server pool shuts down normally, then causing the normally shutdown server to report its identity to the server table and removing the normally shutdown server from the server table (col. 5, lines 15-25 and lines 58-62).

As per claim 16, Zisapel further discloses:

- reassigning the normally shutdown server's first server buddy and second server buddy to be buddies to one another (col. 6, lines 40-55 and col. 7, lines 35-47).

As per claim 17, Zisapel discloses a computer-implemented method for monitoring:

- assigning each of the plurality of servers a first server buddy and a second server buddy within the server pool (col. 6, lines 40-55 and col. 7, lines 35-47);
- causing each of the plurality of servers to monitor the status of its first server buddy and its second server buddy (col. 5, lines 15-27 and col. 6, lines 3-14); and

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- if one of the plurality of servers determines that one of its buddies is down, then causing the monitoring server to notify a central repository that one of its buddies is down (col. 5, lines 15-27).

As per claim **18**, Zisapel further discloses the steps of:

- removing the down buddy server from the central repository when notification is received that the buddy server is down (col. 5, lines 15-27 and col. 6, lines 3-14).

As per claim **19**, Zisapel further discloses the step of:

- reassigning the down server's other buddy to be buddies with the monitoring server (col. 6, lines 40-55 and col. 7, lines 35-47).

As per claim **20**, Zisapel discloses:

- wherein the third buddy server is associated with the first buddy server prior to the first server down signal (col. 5, lines 15-25 and lines 58-62).

As per claim **21**, Zisapel discloses:

- wherein the first server is further operative to notify the third buddy server that the first buddy server is down (col. 5, lines 15-25 and lines 58-62).

As per claim **22**, Zisapel discloses:

- wherein the fourth buddy server is associated with the second buddy server prior to the second server down signal (col. 5, lines 15-25 and lines 58-62).

As per claim **23**, Zisapel discloses:

- wherein the first server is further operative to notify the fourth buddy server that the first buddy server is down (col. 5, lines 15-25 and lines 58-62).

As per claim **24**, Zisapel further discloses the step of:

- reassigning the down server's buddies to be buddies with one another (col. 6, lines 40-55 and col. 7, lines 35-47).

As per claim **25**, Zisapel discloses:

- wherein one of the down server's buddies is the monitoring server, in addition to the down server being a buddy of the monitoring server (col. 5, lines 15-25 and lines 58-62).

### ***Response to Arguments***

1. Applicant's arguments with respect to claims 7-25 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Pat. No. 5,774,660 to Brendel et al

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 703-305-7494.

The examiner can normally be reached on 8:30 AM - 5:00 PM.

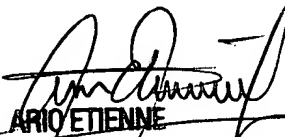
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 703-308-7562. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

LaShonda T. Jacobs  
Examiner  
Art Unit 2157

ltj  
May 17, 2004

  
ARIO ETIENNE  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 210C